



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,842	03/13/2002	Jarkko Jouppi	460-010872-US(PAR)	4434

2512 7590 08/05/2004

PERMAN & GREEN  
425 POST ROAD  
FAIRFIELD, CT 06824

EXAMINER

HUANG, WEN WU

ART UNIT	PAPER NUMBER
----------	--------------

2682

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/099,842

Applicant(s)

JOUPPI ET AL.

Examiner

Wen Huang

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,9-11 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 4-6,8,12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4-23-02,3-29-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: Page 10, line 31 presently reads "a radio access node 5 (RAN)" referring to Figure 1b is incorrect. "a radio access node 1 (RAN)" is considered instead.

Appropriate correction is required.

### ***Drawings***

The drawings are objected to because in Fig. 1 subnetwork "PSPDN" is considered as subnetwork "PSDN" instead. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figure 1a should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. See page 2, line 10-30.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 9-11 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puuskari (WO 99/48310) in view of Alperovich et al (US 6,728,215).

Regarding claims 1, Puuskari discloses a method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, in which wireless terminal at least one application is executed, and the application determines at least one parameter affecting the quality of service for said data transmission connection. See Puuskari page 5, line 33- page 6, line 2.

Puuskari fails to teach a method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network wherein the properties of the wireless terminal affecting the data transmission connection are examined and compared with at least one parameter affecting the quality of service determined by said application, to find out if any determined property of the wireless terminal restricts the quality of service of the data transmission connection with respect to any of said at least one parameter.

Alperovich et al teach a method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network wherein the properties of the wireless terminal affecting the data transmission connection are examined and compared with at least one parameter affecting the quality of service determined by an application, to find out if any determined property of

the wireless terminal restricts the quality of service of the data transmission connection with respect to any of said at least one parameter. See Alperovich et al col. 4, line55-63.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Puuskari and the method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Alperovich et al, in order to optimize the radio bandwidth resource and customer satisfaction level.

Regarding claim 9, Puuskari teaches an apparatus comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, the wireless terminal comprising means for executing at least one application and means for determining at least one parameter affecting the quality of service for said data transmission connection in the application. See Puuskari page 5, line 33- page 6, line 2.

Puuskari fails to teach an apparatus comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein the communication system further comprises means for determining the properties of the wireless terminal affecting the data transmission connection, and means for comparing said properties with at least one parameter affecting the quality of service determined by said application, to find out if any

determined property of the wireless terminal restricts the quality of service of the data transmission connection with respect to any of said at least one parameter.

Alperovich et al disclose an apparatus comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein the communication system further comprises means for determining the properties of the wireless terminal affecting the data transmission connection, and means for comparing said properties with at least one parameter affecting the quality of service determined by an application, to find out if any determined property of the wireless terminal restricts the quality of service of the data transmission connection with respect to any of said at least one parameter. See Alperovich et al col. 4, line55-63.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the apparatus for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Puuskari and the apparatus for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Alperovich et al in order to optimize the radio bandwidth resource and customer satisfaction level.

Regarding claim 15, Puuskari teaches a wireless terminal for use in a communication system comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, the wireless terminal comprising means for executing at least one application

Art Unit: 2682

and means for determining at least one parameter affecting the quality of service for said data transmission connection in the application. See Puuskari page 5, line 29- page 6, line 2.

Puuskari fails to teach a wireless terminal for use in a communication system comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein the wireless terminal further comprises means for determining the properties of the wireless terminal affecting the data transmission connection, and means for comparing said properties with at least one parameter affecting the quality of service determined by said application, to find out if any determined property of the wireless terminal restricts the quality of service of the data transmission connection with respect to any of said at least one parameter.

Alperovich et al show a wireless terminal for use in a communication system comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein the wireless terminal further comprises means for determining the properties of the wireless terminal affecting the data transmission connection, and means for comparing said properties with at least one parameter affecting the quality of service determined by an application, to find out if any determined property of the wireless terminal restricts the quality of service of the data transmission connection with respect to any of said at least one parameter. See Alperovich et al col. 4, line 55-63. See Alperovich et al col. 4, line 55-58, Fig. 2-145, 147, and 148. See Alperovich et al col. 4 line 58-61. Fig. 2-149.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the wireless terminal for use in a communication system comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Puuskari and the wireless terminal for use in a communication system comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Alperovich et al in order to optimize the radio bandwidth resource and customer satisfaction level.

Regarding claim 2, Puuskari as modified by Alperovich et al further discloses a method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein the properties of the wireless terminal affecting the data transmission connection are determined in the wireless terminal. See Alperovich et al col. 4, line 55-58. Fig. 2-145, 147, and 148.

Regarding claim 3, Puuskari as modified by Alperovich et al also teaches a method for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein said comparison between the properties of the wireless terminal and at least one parameter affecting the quality of service determined by the application is made in the wireless terminal. See Alperovich et al col. 4 line 58-61. Fig. 2-149.

Regarding claim 10, Puuskari as modified by Alperovich et al further shows an apparatus for selecting a quality of service for a data transmission connection between

a wireless terminal and a mobile communication network, wherein the means for determining the properties of the wireless terminal affecting the data transmission connection are provided in the wireless terminal. See Alperovich et al col. 4, line 55-58. Fig. 2-145, 147, and 148.

Regarding claim 11, Puuskari as modified by Alperovich et al also teaches an apparatus for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein the means for comparing said properties with at least one parameter affecting the quality of service determined by said application are provided in the wireless terminal. See Alperovich et al col. 4 line 58-61. Fig. 2-149.

Regarding claim 16, Puuskari as modified by Alperovich et al further teaches a wireless terminal for use in a communication system comprising means for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein it comprises means for transmitting a connection request to a mobile communication network, and means for transmitting QoS parameters in said connection request. See Puuskari col. 10, line 19-21.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puuskari and Alperovich et al as applied to claims 1 and 9 above, and further in view of Turumen et al (US 6,690,679).

Puuskari and Alperovich teach a method and an apparatus according to claims 1 and 9, wherein said at least one parameter affecting the quality of service is any of the following: delay, bit rate, bit error ratio. See Puuskari col. 2, line 23-24.

Puuskari fails to teach a method and an apparatus according to claims 1 and 9, wherein said at least one parameter affecting the quality of service is any of the following: traffic class.

Turumen et al show a method and a apparatus for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network, wherein said at least one parameter affecting the quality of service is any of the following: traffic class. See Turumen et al col. 1, line 33-38.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method and the apparatus for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Puuskari and the method and the apparatus for selecting a quality of service for a data transmission connection between a wireless terminal and a mobile communication network of Turumen et al to provide a more flexible QoS profile and increase the QoS negotiation capability.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Puuskari and Alperovich et al as applied to claim 15 above, and further in view of Chiang et al (US 6,594,277).

Puuskari and Alperovich et al teach a wireless terminal according to claim 15. Puuskari and Alperovich fails to teach that means for executing at least one application comprise an application execution environment, in which the determination of the properties of the wireless terminal affecting the quality of service, and the comparison of said properties with at least one parameter affecting the quality of service determined by the application, are arranged to be performed.

Chiang et al teach a wireless terminal, wherein means for executing at least one application comprise an application execution environment, in which the determination of the properties of the wireless terminal affecting the quality of service, and the comparison of said properties with at least one parameter affecting the quality of service determined by the application, are arranged to be performed. See Chiang col. 3 lines 48-50 and line 64-65.

It would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the wireless terminal taught by Chiang et al and the wireless terminal taught by Puuskari and Alperovich et al in order to optimize the performance of the wireless terminal and to provide a more flexible QoS negotiation scheme.

***Allowable Subject Matter***

Claims 4-6, 8, 12, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, no prior art is found that teaches a method according to claim 1, wherein said information is transferred to said application.

Regarding claim 8, no prior art is found that shows a method according to claim 1, wherein one or more QoS default profiles are stored in the wireless terminal, that when setting up the data transmission connection, the wireless terminal examines which of the default profiles best fulfills the parameters determined by the application.

Regarding claim 12, no prior art is found that shows a communication system according to claim 9, wherein it comprises means for transmitting the result of said comparison to the application.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smith et al (US 6,088,732) teaches a method for identify currently available resource in a terminal. Li et al (US 6,654,363) shows the benefit and method of adopting wire line QoS in wireless IP. Mohaban et al (US 6,718,380) discloses a method for use in policy-based QoS treatments.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen Huang whose telephone number is (703) 305-6285. The examiner can normally be reached on 10am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

wwh

6/30/04

  
LEE NGUYEN  
PRIMARY EXAMINER